

Work Order ID 86593

86593

Page 1

July-05-12 1:17:30 PM

Item ID: D3953-5 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Gas Spring Stud, Base
 Start Date: 7/05/12 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 7/13/12 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: CL Date: 12/07/05 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3953	C								

100 0.00
100
 Doosan
 Doosan Lathe
 Memo
 Turn as per folio FA857 & DWG
 FOLIO REV: 12
 DWG REV: 6

DEBURR

110 0.00
110
 QC
 Quality Control
 Memo
 QC2- Inspect parts off machine FAI/FAIB

29 12-7-10 20 1
29 12-7-10 20 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 86593

86593

Page 2

July-05-12 1:17:30 PM

Item ID: D3953-5 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Gas Spring Stud, Base
 Start Date: 7/05/12 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 7/13/12 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.00		B.A		20	0		
Quality Control									
130	Identify as per dwg & Stock Location: <u>75</u>	0.00							
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

(20x) 12-7-10sf
 ME 12-07-10

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

July-05-12 1:17:29 PM

Page 1

Work Order ID: 86593

Parent Item: D3953-5

Parent Item Name: Gas Spring Stud, Base

Start Date: 7/05/12

Required Date: 7/13/12

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP RevA: New issue DD verified by:EC
by:EC

IPP Rev:B as per dwg revC DD 10.03.02 verified

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304R1.750 304 ROUND BAR 1.750		Purchased	No			100	f	17.6500	0.125	2.6315789			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT029		17.65							
				113295		12.04							
				117030 ✓		5.61							

27.10

2.5

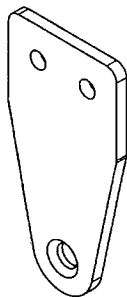
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

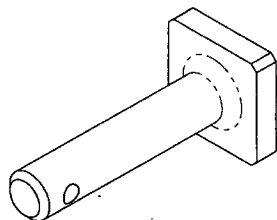
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

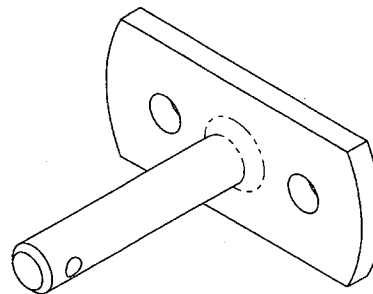
NOTE: Date & initial all entries



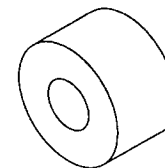
D3953-1 GAS SPRING BRACKET
(FULL LID)



D3953-3 GAS SPRING STUD, LID



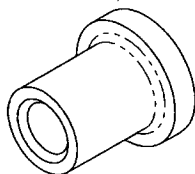
D3953-5 GAS SPRING STUD, BASE



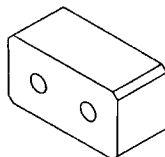
D3953-7 GAS SPRING SPACER



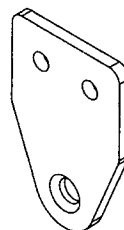
D3953-9 GAS SPRING WASHER



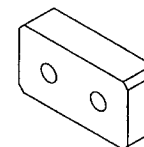
D3953-11 GAS SPRING SPACER



D3953-13 GAS SPRING SPACER
(FULL LID)



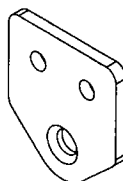
D3953-15 GAS SPRING BRACKET
(SPLIT LID)



D3953-17 GAS SPRING SPACER
(SPLIT LID)



D3953-19 GAS SPRING BRACKET
(SQUARE BASKET)

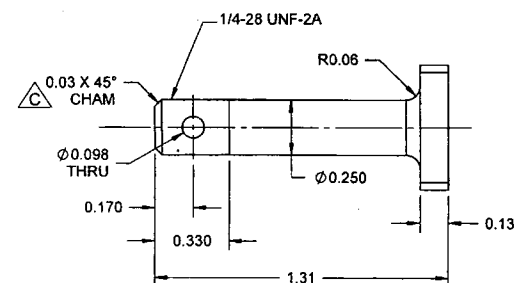


D3953-21 GAS SPRING BRACKET
(SQUARE BASKET)

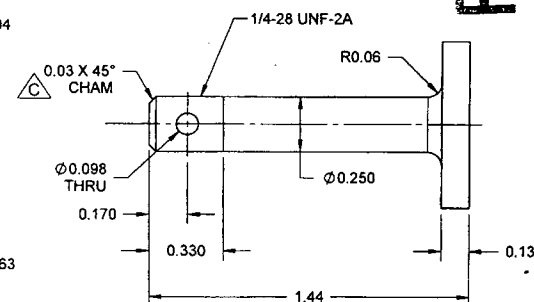
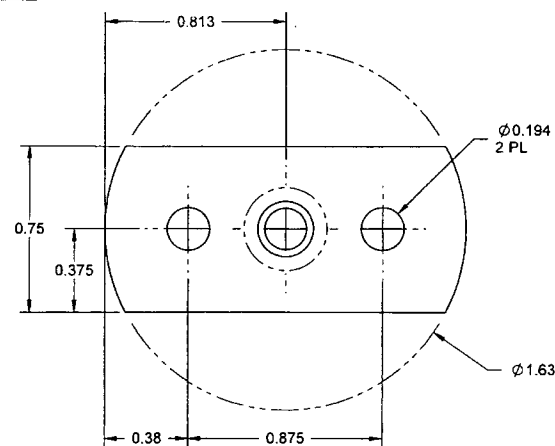
RELEASED
R 2010-07-26

CL 12/07/05
W10: 86593

C	PARTS -19 & -21 ADDED (SHT 1 & 4); CSK CALLOUT WAS CHAM (C6-2, B6-3, C6-4); Q SYMM WAS C SYM ABOUT (C7-2, C7-4); SECTION C-C REPOSITIONED TO B2-4 REASON: ADDL PARTS REQD; DRAFTING ERRORS	JPH	10.01.29
B	SHEET 3 ZONE C1, DIM 0.05 MIN WAS 0.13, MULTIPLE DIMENSIONS MIN/MAX REMOVED TOLERANCE ADDED, REASON: DIFFICULTY INSTALLING COTTER PIN AT NEXT ASSY	AJS	09.11.11
A	NEW ISSUE	AJS	09.07.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	JP	DRAWING NO.	REV. C
MFG. APPR.	JP	D3953	SHEET 1 OF 4
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	GAS SPRING LID COMPONENTS	NTS
DATE	10.01.29	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D3953-3 GAS SPRING STUD, LID



D3953-5 GAS SPRING STUD, BASE

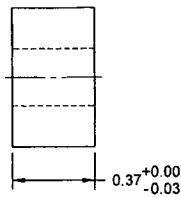
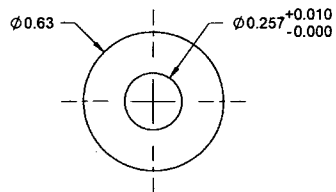
1) MATERIAL -1: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S11GA

-3 & -5: AISI 304 STAINLESS STEEL BAR
REF DART SPEC M304B
OR:
AISI 304/316 STAINLESS STEEL ROD
REF DART SPEC M304R

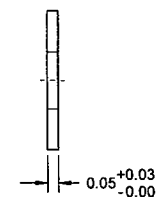
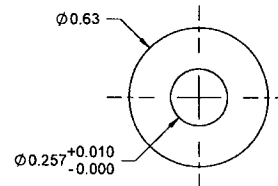
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3953-X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT -1: 0.11 lbs
 -3: 0.03 lbs
 -5: 0.06 lbs

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3953	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	GAS SPRING LID COMPONENTS	
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED TO YOU UNDER AGREEMENT THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

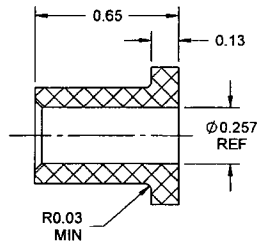
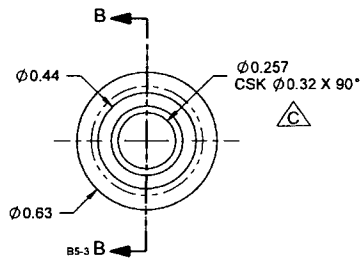
RELEASED
2010-02-26



D3953-7 GAS SPRING SPACER

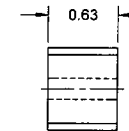
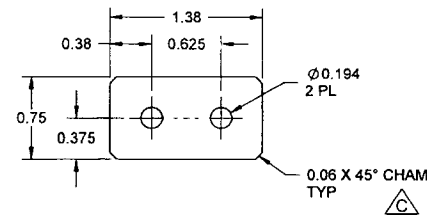


D3953-9 GAS SPRING WASHER



SECTION B-B B7-3

D3953-11 GAS SPRING SPACER



D3953-13 GAS SPRING SPACER

NOTES:

1) MATERIAL -7, -9 & -11: DELRIN II 150E OR ACETRON GP ACETAL, BLACK
REF DART SPEC M-DELIN-R

-13: AISI 304 STAINLESS STEEL BAR
REF DART SPEC M304B

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION -13 ONLY: IDENTIFY WITH DART P/N "D3953-13" USING FINE POINT PERMANENT INK MARKER

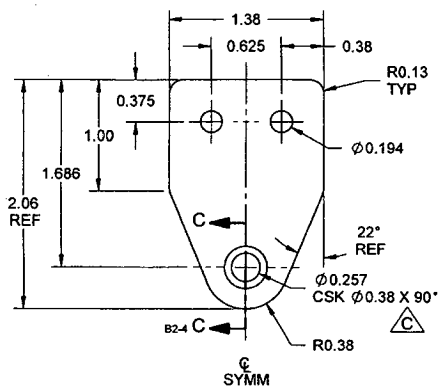
7) WEIGHT -7/-9/-11: < 0.01 lbs EACH

-13: 0.17 lbs

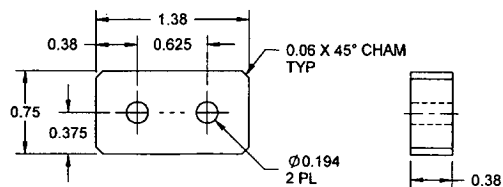
RELEASED
2010-02-26

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	<i>[Signature]</i>	DRAWING NO. D3953	REV: C
MFG. APPR.	<i>[Signature]</i>	SHEET 3 OF 4	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	GAS SPRING LID COMPONENTS	
DATE	10.01.29	NTS	

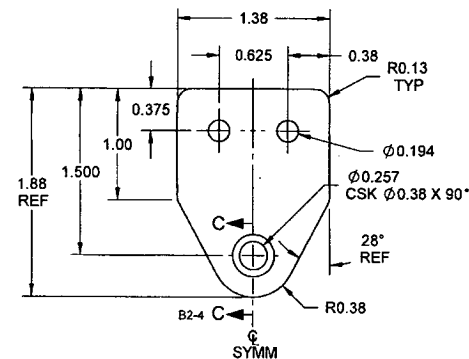
COPYRIGHT © 2009 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD.



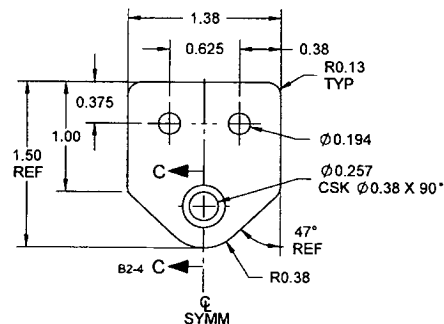
D3953-15 GAS SPRING BRACKET
(SPLIT LID)



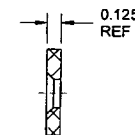
D3953-17 GAS SPRING SPACER
(SPLIT LID)



D3953-19 GAS SPRING BRACKET
(SQUARE BASKET)



D3953-21 GAS SPRING BRACKET
(SQUARE BASKET)



SECTION C-C

NOTES:

1) MATERIAL -15/-19/-21: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF DART SPEC M304S11GA

-17: AISI 304 STAINLESS STEEL BAR
REF DART SPEC M304B

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3953-X" USING FINE POINT PERMANENT INK MARKER

7) WEIGHT -15: 0.08 lbs

-17: 0.10 lbs

-19: 0.07 lbs

-21: 0.06 lbs

RELEASED
2010-02-26

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3953	SHEET 4 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	GAS SPRING LID COMPONENTS	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

DART AEROSPACE LTD		Work Order:	86593
Description: Gas Spring Stud, Base		Part Number:	D3953-5
Inspection Dwg: D3953 Rev: C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.813	+/-0.010	.813	/		R.A.	
Ø0.194	+0.004/-0.001	.195	/			
0.75	+/-0.030	.749	/			
0.375	+/-0.010	.379	/			
0.38	+/-0.030	.379	/			
0.875	+/-0.010	.875	/			
1.63	+/-0.030	1.630	/			
1/4-28 UNF-2A	Max = 0.2668 Min = 0.2635	.265	/			
R0.06	+/-0.030	R.06	/			
Ø0.098	+0.004/-0.001	.097	/			
0.250	+/-0.010	.248	/			
0.170	+/-0.010	.172	/			
0.330	+/-0.010	.330	/			
0.13	+/-0.030	.131	/			
1.44	+/-0.030	1.442	/			

Measured by: <i>R.A.</i>	Audited by: <i>B.A.</i>	Prototype Approval:	N/A
Date: 12.7.10	Date: 12/07/10	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.11.11	New Issue	KJ	
B	09.12.14	Dwg Rev updated	KJ <i>[Signature]</i>	<i>[Signature]</i>